

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

---

In re application of:

WARREN M. FARNWORTH  
ALAN G. WOOD

SERIAL NO.:

CONTINUATION OF SERIAL NO. 09/653,366  
filed on 09/01/2000

ART UNIT:

Filing Date: October 24, 2003

Examiner:

Title: ELECTRONIC ASSEMBLY HAVING SEMICONDUCTOR  
COMPONENT WITH POLYMER SUPPORT MEMBER  
AND METHOD OF FABRICATION

Attorney Docket No.: 99-0068.3

---

**INFORMATION DISCLOSURE STATEMENT**  
**October 24, 2003**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The following sections are being submitted for this Information  
Disclosure Statement:

- |    |               |   |
|----|---------------|---|
| 1. | <u>  x  </u>  | Preliminary Statements  |
| 2. | <u>  x  </u>  | FORM PTO SB/08  |
| 3. | <u>      </u> | Statement As to Information Material to<br>Examination Not Found in Patents or Publications.  |
| 4. | <u>  x  </u>  | Identification of Prior Application in Which Listed<br>Information Was Already Cited and For Which No Copies<br>are Submitted Or Need be Submitted. |
| 5. | <u>      </u> | Cumulative Patents or Publications.   |
| 6. | <u>      </u> | Copies of Listed Information Items Accompanying<br>This Statement.  |

7. \_\_\_\_\_ Concise Explanation of Non-English Language Listed Information Items.
8. \_\_\_\_\_ Translation(s) of Non-English Language Documents.
9.   x   Identification of Person(s) Making This Information Disclosure Statement.

### Section 1. Preliminary Statements

Applicants submit herewith patents, publications or other information of which they are aware which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 C.F.R. §1.56.

The filing of this information disclosure statement shall not be construed as a representation that a search has made (37 C.F.R. 1.56 (g)), an admission that the information cited is, or is considered to be, material to patentability or that no other material information exists.

### Section 2. Identification of Person(s) Making This INFORMATION DISCLOSURE STATEMENT

The person making this statement is  
(a) \_\_\_\_\_ the inventor(s) who signs below

\_\_\_\_\_  
SIGNATURE OF INVENTOR

\_\_\_\_\_  
Name of Inventor

(b)   x   the attorney who signs below on the basis of:

\_\_\_\_\_ the information supplied by the inventor(s)

\_\_\_\_\_ an individual associated with the filing and prosecution of this application (37 CFR 1.56(c))

  x   the information in the attorney's file.

### Section 3. Identification of Prior Application In Which Listed Information Was Already Cited and For Which No Copies are Submitted or Needed Be Submitted.

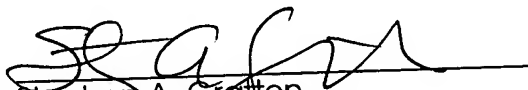
This application relies, under 35 U.S.C. 120, on the earlier filing date of application serial no. 09/653,366 filed 09/01/2000, which is a division of

Serial No. 09/440,380 filed 11/15/1999, Patent No. 6,180,504 B1, which is a division of Serial No. 09/384,783 filed 08/27/1999, Patent No. 6,118,179.

The attached list of references were submitted to and/or cited by the Office in these prior applications and, therefore, are not required to be provided in this application.

DATED this 24th day of October, 2003.

Respectfully submitted:

  
Stephen A. Gratton  
Registration No. 28,418  
Attorney for Applicants


2764 South Braun Way  
Lakewood, CO 80228  
Telephone: (303) 989 6353  
FAX: (303) 989 6538

**CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

**"Express Mail" Mailing Label Number ER 536 746 699US**  
**Date of Deposit: October 24, 2003**

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Mail Stop Patent Application, Commissioner of Patents, PO Box 1450, Alexandria, VA 22313-1450.

October 24, 2003  
Date of Signature

  
Stephen A. Gratton, Attorney for Applicants

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	
Filing Date	10/24/2003
First Named Inventor	WARREN M. FARNWORTH
Art Unit	
Examiner Name	
Attorney Docket Number	99-0068.3

Sheet 1 of 2

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	A	US- 5,385,636	01/03/1995	Poingt et al.	
	B	US- 5,674,785	10/07/1997	Akram et al.	
	C	US- 5,677,566	10/14/1997	King	
	D	US- 5,739,585	04/14/1998	Akram et al.	
	E	US- 5,763,939	06/09/1998	Yamashita	
	F	US- 5,783,461	07/21/1998	Hembree	
	G	US- 5,811,879	09/22/1998	Akram	
	H	US- 5,834,945	11/10/1998	Akram et al.	
	I	US- 5,885,849	03/23/1999	DiStefano et al.	
	J	US- 5,925,930	07/20/1999	Farnworth et al.	
	K	US- 5,956,605	09/21/1999	Akram et al.	
	L	US- 6,059,173	05/09/2000	Mays et al.	
	M	US- 6,063,647	05/16/2000	Chen et al.	
	N	US- 6,118,179	09/12/2000	Farnworth et al.	
	O	US- 6,180,504B1	01/30/2001	Farnworth et al.	
	P	US- 6,204,080	03/20/2001	Hwang	
	Q	US- 6,297,560	10/02/2001	Capote et al.	
	R	US- 6,352,881	03/05/2002	Nguyen et al.	
	S	US- 6,583,354	06/24/2003	Alcoe	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>5</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
	T	WO 99/21226	04/29/1999	Elenius et al.		

Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		<b>Complete if Known</b>	
		Application Number	
		Filing Date	10/24/2003
		First Named Inventor	WARREN M. FARNWORTH
		Art Unit	
		Examiner Name	
Sheet	2	of	2
		Attorney Docket Number	99-0068.2

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	T	TUMMALA, RAO R., "Chip-to-Package Interconnections", Microelectronics Packaging Handbook, 1989, pgs 366-368, VanNostrand Reinhold (publisher), New York, NY.	
	U	LAU, JOHN H., Ball Grid Array Technology, 1995, pgs 33, 47, 56, 133, 180, 247, 279, 475, 476-480, McGraw-Hill, Inc., United States.	
	V	JOHN BALIGA, "Assembly & Packaging Wafer-Level Packages to Include Solder Ball Support", Nov. 27, 2000, pgs 1-2, Technology News.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.